# AR Extension for Unity 3 - Release Notes [QCAR v1.0.0]

Last update: April 20, 2011

## Introduction

This file contains general release notes for the QUALCOMM AR Extension for Unity 3

## QCAR Extension for Unity v1.0.0

***Bugfixes / Features***

- Improved overall tracking and detection performance
- Improved redetection performance of recently lost targets
- Improved detection and tracking of Frame Markers
- Improved video background rendering performance
- Improved robustness of Virtual Buttons
- Added warnings for duplicate Frame Markers
- Added support for specifying a world center target
- Added support for controlling the camera flash mode
- Added support for controlling the camera focus mode
- Added support for playing back the AR scene within the Unity Editor
- Added support for accessing the camera image pixel buffer
- Added support for disabling/enabling tracking, individual trackables and Virtual Buttons
- Added support for Virtual Button reconfiguration
- Added Frame Marker print-out file
- Support for registering callbacks for when a trackable is lost and found
- Support for creating and editing Virtual Buttons in the Unity Editor
- Changed Image Targets and Frame Markers representation to uniformly scaled objects (fixes the problem where a rotated object on the trackable is sheered)
- Changed the Unity Extension package name
- Moved print-out files for sample apps into separate directories (“Editor/QCAR/ForPrint”)
- Cleaned up all Behaviors in the Extension and simplified the interfaces
- Extended Virtual Button sample to show Virtual Button reconfiguration
- Target Management System portal now supports the download of target assets as a “.unitypackage” file for direct import in the Unity project
- Fixed auto-renaming on re-import of config.xml
- Fixed bug where application becomes unstable after pausing and resuming
- Fixed camera alignment in portrait mode
- Fixed several bugs to improve the synchronization of the Unity scene with the QCAR config.xml
- Fixed an issue where the Extension breaks with Unity 3.2 and above
- Fixed an issue where multiple trackables are incorrectly handled when tracked simultaneously
- Updated link in help menu

***Known issues***

- The following screen orientations that are available in Android 2.3 (Gingerbread) and above are not supported by the QCAR Extension for Unity

 

    - Portrait Upside Down
    - Landscape Right
- If QCAR fails to initialize in the provided Unity sample, then the subsequent call to the Unity function Application.Quit() results in a crash
- Modifying MultiTargets and run-time creation or modification are not supported
- Native Activities are not supported, behavior is undefined if option is used
- Rare camera-stutter if application is revoked through “recent apps menu” on Nexus One devices after several hours of continuous use. Seems to happen only on Android 2.1
- Rare camera-stutter after successive Unity scene changes on some devices after several hours of use
- On certain devices, the video preview rendering and the rendering layer order may be mismatched after another application overlays the QCAR rendering window

**QCAR Unity Plugin v0.10.0 – BETA2**

***Bugfixes / Features***

- More efficient video background rendering matching latest device settings
- No video background rendering artifacts upon start-up
- Updated documentation
- Made existing sample projects more robust
- Added new sample projects to demonstrate new features
- Support for virtual buttons
- Support for multi-image targets
- Added dialog box support to display QCAR initialization errors
- Fixed sound and accelerometer support
- Added user interface support to the Unity plugin so that the Unity Editor can handle AR content
- Added support for automatically creating Unity packages from sample applications
- Created installer for the QCAR Unity plugin

***Known issues***

- Rare application freeze and "CPU may be pegged" issue has been observed on Froyo. This has been observed by others working with camera and OpenGL on Android
- Video preview rendering and rendering layer order mismatched after another application overlayed QCAR rendering window - not aimed to resolve for public beta release
- Camera-JNI and mPreviewLock messages appear in logcat output on Android 2.1
- Application in ‘portrait mode’ may result in displaced augmentations
- Frame marker prefabs have wrong default scale values. Need to be manually fixed to be square for now

 